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spe4corners@spemail.org

Four Corners SPE
P.O. Box 1526
Farmington, NM 87499

http://connect.spe.org/Four_corners_petroluem

Board Member Recognition

Congratulations Ethan Plunkett!

Ethan Plunkett, our current SPE Four Corners Section Program Chair, recently received the Regional Service Award presented by Society of Petroleum Engineers. This Award acknowledges exceptional contributions to SPE at the regional level and recognizes singular devotion of time and effort to the programs and development of the member's section and region.

Ethan started SPE volunteerism early in his career while at the University of Oklahoma, and upon arriving in the Four Corners Section he has hit the ground running as a volunteer full of energy and enthusiasm. He has helped to strengthen the local Board, reached out to the younger membership, and now works to provide high-quality technical presentations to our membership.

Ethan is currently working as a Development and Depletion Planning Engineer for ConocoPhillips based in Farmington, NM.

SPE Activities

2016-2017 Officer Elections

Please take a minute to fill out this survey for 2016-2017 Officer Elections.

Four Corners Oil & Gas Show

Thank you to all this year's participants, volunteers and visitors alike, for contributing to another successful show.
ASU Student Chapter

Recently, geoscientist/petroleum engineer Anchor Holm with the New Mexico State Land Office was able to give a presentation to a large group of ASU petro-technical students, including the SPE, Geology Club, and AIChE. The presentation was very well received and the Chapter is grateful for any time that our members can spend down there, especially since they are a bit geographically disconnected from industry. Next time you are heading to Phoenix on business or personal travel, consider giving a presentation to the newly formed ASU SPE Student Chapter. Contact Student Chapter President Justin Bessant with any questions or to schedule a presentation.

The Four Corners Petroleum section of the Society of Petroleum Engineers is offering the energy4me program to anyone requesting good and defendable information about energy issues. We will tailor our presentation to meet the needs and concerns of you and your audience.

*To schedule a presentation please contact Gavin Tweedie with BP at 505-326-9225.*

SPE 4 Corners Meeting

Lunch & Lecture – June 16th

Who: Robert Sutton (Distinguished Lecture), Sutton Consulting will be discussing how understanding liquid loading will improve well performance.

When: Thursday, 16 June 2016
11:30 am – 1:00 pm

Where: BP America Production CO
Durango Office
380 Airport Road Durango, CO 81303
Sign in at lobby front desk

Cost: $20 with RSVP
Please RSVP through the event at the Four Corners Section website (instructions on page 7). Early registration available until 11pmMST Tuesday, June 14th for $20; any RSVP made after or apart from the SPE website will be charged $25 at the door.

Two alternative RSVP options are now available: to listen without purchasing lunch or, as an upstanding student member, lunch will be provided at no cost.

Please find the biography for the speaker on Page 4.

Looking forward 2016-2017

Save the Date!

TBD, Fall 2016
Four Corners SPE Shootout

Monday, Sept 19, 2016
Dan Gibson*
Evaluating Completion Options to Maximize Value

Thursday, Nov 10, 2016
Frank Blaskovich*

Thursday, Dec 8, 2016
Ian Walton*
The Role of Natural Fractures in Shale Gas Production: What Does Production Data Tell Us?

*denotes SPE International 2016-17 Distinguished Lecturer Series
Meeting Venue

*BP America Production CO*

Address: 380 Airport Road, Durango, CO 81303
Rob Sutton is a petroleum consultant in Houston, Texas. He started his 35 year career with Marathon Oil Company in their Gulf Coast Offshore District in 1978. He moved to Marathon's Denver Technology Center in 1985 where he worked in the Reservoir Management Department and developed Marathon's in-house nodal analysis software. He moved with the technology organization to Houston in 2001 and retired from Marathon in 2014.

Rob received a BS in Petroleum Engineering from Marietta College. He also holds an MS in Petroleum Engineering from the University of Louisiana at Lafayette. He has authored 27 papers for SPE along with 10 journal publications. He wrote the chapter on oil PVT correlations in the recently updated Petroleum Engineering Handbook as well as coauthored a chapter in Gas Well Deliquification. Rob received SPE's 2014 Production and Operations Award.

Rob was an SPE Distinguished Lecturer for the 2012-13 lecture season.

### Understanding Liquid Loading Will Improve Well Performance

**Abstract**

The key take-away: Illustrate that complex well geometries increase the critical velocity requirement and that failure to account for this can result in loss of both production and reserves.

Operators of natural gas wells have long used the Turner equations to calculate critical gas velocity to keep gas wells unloaded. The original Turner method was developed for vertical wells with analysis performed using wellhead conditions. However, this methodology is only applicable to high pressure, vertical wells with a simple completion geometry. Modern well design most often employs complex geometries including slant, s-shaped and horizontal well paths as operators seek to reduce costs and the environmental footprint while maximizing the production rate potential. These geometries require special consideration when estimating critical velocity. Wells produced below the critical velocity will develop a static liquid column which can damage the reservoir and impede well productivity. Proper diagnosis of this problem will improve well performance and ultimate recovery.

The purpose of this presentation is to provide an overview of historical techniques for detecting liquid loading and to provide modification to the classical Turner method that address contemporary well designs. The discussions will include recent advances which address the proper evaluation point based on reservoir and well conditions. The talk will also compare the modified Turner methods to the use of multiphase flow pressure drop models for predicting liquid loading and will demonstrate the superiority of using a modified Turner's method to determine critical velocity. Flow loop videos are used to illustrate the result of producing below the critical velocity. Potential improvements will be quantified through field examples for conventional, unconventional and horizontal well applications.
SPE Four Corners Sponsorship

There is now an opportunity for non-profit groups seeking sponsorship to apply for funding though Four Corners SPE. As an example of sponsorship opportunities, last year, SPE Four Corners sponsored a Lego League Team, a global program created to get kids excited about science and technology.

Please find the necessary documentation here and submit to Forest Bommarito. The donation form can also be found on the Four Corners SPE home page.

**Donation Request Form**

**SPE Four Corners**

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**Form Instructions:** Complete form as indicated and email to fbommarito@rwpc.us

**SPE Four Corners Objectives:**

To collect, disseminate, and exchange technical knowledge concerning the exploration, development, and production of oil and gas resources, and related technologies for the public benefit; and to provide opportunities for professionals to enhance their technical and professional competence. The secondary purpose of the Section shall include the promotion of engineering education through scholarships and community outreach.
Update Your SPE Membership Profile Today!

If you have moved, changed jobs, shifted job focus, or found new technical interests, we want to know!

Simply log in to your SPE membership account and update your membership profile. It takes less than 5 minutes, and will help us serve you better.

Tell us what's new today.

P.S. Don't forget to update your communication preferences, too. We are now offering you more options in your Communication Preferences to make our emails better targeted to your interests.
PayPal System

Starting in January 2013, the early registration discount for meetings will require registration and payment before the RSVP deadline. We will be using payment services via PayPal. This requires the ability to access your SPE account online as well as creating a PayPal account (or you can pay as a PayPal Guest). Please use the following instructions on how to RSVP to our monthly events:

Instructions:
1. Go to the Four Corners website at http://connect.spe.org/FourCornersPetroleum/Home/
2. Click the hyperlink for the Luncheon under “Upcoming Events” on the Home Page
3. Review luncheon details, select the “Register Now” hyperlink
4. Login to your SPE account
5. Answer questions for “Select Registrants,” select Next
6. Confirm order, select Confirm Registration
7. Sign in to PayPal account (need to create if you don't already have one) OR pay as a PayPal Guest.
8. Review/update PayPal information, select Pay Now
9. Registration complete, receipt will be emailed to your PayPal email address on file